Marc Schaekers

List of Publications by Year
in descending order

59 papers	1,281 citations	361413 20 h-index	361022 35 g-index
59 all docs	59 docs citations	59 times ranked	1566 citing authors

#	Article	IF	Citations
1	Germanium surface passivation and atomic layer deposition of high-kdielectricsâ€"a tutorial review on Ge-based MOS capacitors. Semiconductor Science and Technology, 2012, 27, 074012.	2.0	138
2	Low-loss amorphous silicon-on-insulator technology for photonic integrated circuitry. Optics Communications, 2009, 282, 1767-1770.	2.1	119
3	Semiconductor-metal transition in thin VO2 films grown by ozone based atomic layer deposition. Applied Physics Letters, 2011, 98, .	3.3	78
4	Metalâ€Insulator Transition in ALD VO₂ Ultrathin Films and Nanoparticles: Morphological Control. Advanced Functional Materials, 2015, 25, 679-686.	14.9	70
5	Multiring Circular Transmission Line Model for Ultralow Contact Resistivity Extraction. IEEE Electron Device Letters, 2015, 36, 600-602.	3.9	64
6	Characterization and optimization of porogen-based PECVD deposited extreme low-k materials as a function of UV-cure time. Surface and Coatings Technology, 2007, 201, 9264-9268.	4.8	50
7	Process Study and Characterization of VO₂Thin Films Synthesized by ALD Using TEMAV and O₃Precursors. ECS Journal of Solid State Science and Technology, 2012, 1, P169-P174.	1.8	48
8	A Simplified Method for (Circular) Transmission Line Model Simulation and Ultralow Contact Resistivity Extraction. IEEE Electron Device Letters, 2014, 35, 957-959.	3.9	44
9	Titanium Silicide on Si:P With Precontact Amorphization Implantation Treatment: Contact Resistivity Approaching $1 imes 10^{-9}$ Ohm-cm2. IEEE Transactions on Electron Devices, 2016, 63, 4632-4641.	3.0	44
10	Implementing TiO2 as gate dielectric for Ge-channel complementary metal-oxide-semiconductor devices by using HfO2/GeO2 interlayer. Applied Physics Letters, 2010, 97, .	3.3	41
11	Thermal Stability Concern of Metal-Insulator-Semiconductor Contact: A Case Study of Ti/TiO₂/n-Si Contact. IEEE Transactions on Electron Devices, 2016, 63, 2671-2676.	3.0	39
12	Atomic layer deposition of ruthenium at 100 Â°C using the RuO₄-precursor and H₂. Journal of Materials Chemistry C, 2015, 3, 132-137.	5.5	35
13	TiSi(Ge) Contacts Formed at Low Temperature Achieving Around $2 ,, imes ,, 10^{-{9}}~Omega $ cm2 Contact Resistivities to p-SiGe. IEEE Transactions on Electron Devices, 2017, 64, 500-506.	3.0	31
14	Crystallization and semiconductor-metal switching behavior of thin VO2 layers grown by atomic layer deposition. Thin Solid Films, 2014, 550, 59-64.	1.8	30
15	Contact resistivities of metal-insulator-semiconductor contacts and metal-semiconductor contacts. Applied Physics Letters, 2016, 108, .	3.3	29
16	Low-Resistance Titanium Contacts and Thermally Unstable Nickel Germanide Contacts on p-Type Germanium. IEEE Electron Device Letters, 2016, 37, 482-485.	3.9	28
17	Lanthanum and Lanthanum Silicide Contacts on N-Type Silicon. IEEE Electron Device Letters, 2017, 38, 843-846.	3.9	28
18	Effective reduction of fixed charge densities in germanium based metal-oxide-semiconductor devices. Applied Physics Letters, 2011, 99, .	3.3	27

#	Article	IF	Citations
19	Ultrathin GeOxNy interlayer formed by in situâ€ˆNH3 plasma pretreatment for passivation of germanium metal-oxide-semiconductor devices. Applied Physics Letters, 2010, 97, .	3.3	25
20	NiO Thin Films Synthesized by Atomic Layer Deposition using Ni(dmamb)₂ and Ozone as Precursors. Chemical Vapor Deposition, 2012, 18, 61-69.	1.3	25
21	High-Performance Ge MOS Capacitors by $hbox{O}_{2}$ Plasma Passivation and $hbox{O}_{2}$ Ambient Annealing. IEEE Electron Device Letters, 2011, 32, 1656-1658.	3.9	19
22	Controlled growth of rutile TiO₂ by atomic layer deposition on oxidized ruthenium. Physica Status Solidi - Rapid Research Letters, 2011, 5, 19-21.	2.4	19
23	Effective Electrical Passivation of Ge(100) for HfO2 Gate Dielectric Layers Using O2 Plasma. Electrochemical and Solid-State Letters, 2011, 14, G20.	2.2	19
24	Near room temperature plasma enhanced atomic layer deposition of ruthenium using the RuO₄-precursor and H₂-plasma. Journal of Materials Chemistry C, 2015, 3, 4848-4851.	5.5	19
25	Defect engineering for shallow nâ€‘type junctions in germanium: Facts and fiction. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2799-2808.	1.8	18
26	(Invited) Vanadium Oxide as a Memory Material. ECS Transactions, 2011, 35, 233-243.	0.5	16
27	Low temperature plasma-enhanced atomic layer deposition of thin vanadium nitride layers for copper diffusion barriers. Applied Physics Letters, 2013, 102, 111910.	3.3	15
28	The Deposition of Ru and RuO₂ Films for DRAM Electrode. ECS Transactions, 2010, 33, 135-144.	0.5	14
29	Thermal trimming and tuning of hydrogenated amorphous silicon nanophotonic devices. Applied Physics Letters, 2010, 97, 071120.	3.3	14
30	TiO2/HfO2 Bi-Layer Gate Stacks Grown by Atomic Layer Deposition for Germanium-Based Metal-Oxide-Semiconductor Devices Using GeOxNy Passivation Layer. Electrochemical and Solid-State Letters, 2011, 14, G27.	2.2	14
31	Selective chemical vapor synthesis of Cu3Ge: Process optimization and film properties. Intermetallics, 2013, 34, 35-42.	3.9	11
32	Phase Formation and Morphology of Nickel Silicide Thin Films Synthesized by Catalyzed Chemical Vapor Reaction of Nickel with Silane. Chemistry of Materials, 2015, 27, 245-254.	6.7	11
33	MIS or MS? Source/drain contact scheme evaluation for 7nm Si CMOS technology and beyond. , 2016, , .		11
34	Low temperature epitaxial growth of Ge:B and Ge0.99Sn0.01:B source/drain for Ge pMOS devices: in-situ and conformal B-doping, selectivity towards oxide and nitride with no need for any post-epi activation treatment. Japanese Journal of Applied Physics, 2019, 58, SBBA04.	1.5	11
35	Deposited amorphous silicon-on-insulator technology for nano-photonic integrated circuits. Optics Communications, 2014, 313, 210-216.	2.1	10
36	Characterization of ultra-thin nickelâ€“silicide films synthesized using the solid state reaction of Ni with an underlying Si:P substrate (P: 0.7 to 4.0%). Microelectronic Engineering, 2016, 157, 52-59.	2.4	10

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37	Thermal Stability of TiN/Ti/p⁺-Si_{0.3}Ge_{0.7} Contact With Ultralow Contact Resistivity. IEEE Electron Device Letters, 2018, 39, 83-86.	3.9	8
38	Review of Silicon Nanowire Oxidation. ECS Transactions, 2011, 34, 535-540.	0.5	7
39	Ultrathin NiGe Films Prepared via Catalytic Solidâ€“Vapor Reaction of Ni with GeH₄. ACS Applied Materials & Interfaces, 2013, 5, 9605-9614.	8.0	6
40	Improved Ohmic Performance by the Metallic Bilayer Contact Stack of Oxygen-Incorporated La/Ultrathin TiSi<italic> _x </italic> on n-Si. IEEE Transactions on Electron Devices, 2018, 65, 1869-1872.	3.0	6
41	Development of 300mm MOCVD HfSiOx Process. ECS Transactions, 2006, 3, 417-424.	0.5	5
42	Titanium (germano-)silicides featuring 10^{â^'9}Î©Â·cm²contact resistivity and improved compatibility to advanced CMOS technology. , 2018, , .		5
43	ALD Ru and its Application in DRAM MIM-Capacitors and Interconnect. ECS Transactions, 2011, 34, 509-514.	0.5	3
44	Ru as an alternative material for advanced contacts. , 2020, , .		3
45	Barrier Deposition for Advanced Interconnects. ECS Transactions, 2007, 3, 131-138.	0.5	2
46	Implementation of Atomic Layer Deposition in Advanced Semiconductor Processes. ECS Transactions, 2006, 1, 3-13.	0.5	2
47	Metal-Organic Chemical Vapor Deposition of Ti-Doped NiO Layers for Application in Resistive Switching Memories. ECS Transactions, 2010, 33, 313-322.	0.5	2
48	Development of ALD HfZrO_x with TDEAH, TDEAZ and H₂O. ECS Transactions, 2010, 27, 699-704.	0.5	2
49	Effective Contact Resistivity Reduction for Mo/Pd/n-In0.53Ga0.47 as Contact. IEEE Electron Device Letters, 2019, 40, 1800-1803.	3.9	2
50	Scaling Down of MOCVD HfSiON to 1nm EOT. ECS Transactions, 2007, 11, 13-24.	0.5	1
51	Dummy Oxide Removal in High-K Last Process Integration how to Avoid Silicon Corrosion Issue. Solid State Phenomena, 0, 195, 13-16.	0.3	1
52	Growth evolution and characterization of ultra-thin CoGe2 films synthesized via a catalytic solidâ€“vapour reaction technique. Journal of Materials Chemistry C, 2014, 2, 1904.	5.5	1
53	Oxygen Gettering Cap to Scavenge Parasitic Oxide Interlayer in TiSi Contacts. IEEE Electron Device Letters, 2019, 40, 1712-1715.	3.9	1
54	The Deposition of Polycrystalline SiGe with Different Ge Precursors. ECS Transactions, 2006, 3, 849-860.	0.5	0

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55	Evaluation of DiMethylAminoGermaniumTetraChloride as a novel Carbon-Dopant and Germanium Precursor for Germanium and Silicon Germanium Chemical Vapor Deposition. ECS Transactions, 2009, 16, 159-162.	0.5	0
56	Development and evaluation of a-SiC:H films using a dimethylsilacyclopentane precursor as a low-k Cu capping layer. , 2013, , .		0
57	Low temperature thermal and plasma enhanced atomic layer deposition of ruthenium using RuO<inf>4</inf> and H<inf>2</inf>/H<inf>2</inf>-plasma. , 2015, , .		0
58	Phase analysis and thermal stability of thin films synthesized via solid state reaction of Ni with Si1â˜'xGex substrate. Microelectronic Engineering, 2016, 149, 46-51.	2.4	0
59	Study of the Mechanical Stress Impact on Silicide Contact Resistance by 4-Point Bending. , 2019, , .		0